

## Carboline Architectural System Guide for Coating Applications

Performance Level	Surface Preparation (SSPC)	1 <sup>st</sup> Coat	Mils (Microns)	2 <sup>nd</sup> Coat	Mils (Microns)	3 <sup>rd</sup> Coat	Mils (Microns)
<b>Steel</b> <i>Exterior Applications</i>			<b>Applications</b> <i>Structural steel, miscellaneous metal fabrications and handrails.</i>				

### ***New Construction - Gloss Finish***

Good	SP 6	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)		
Good	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Very Good	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)
Excellent	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carboxane 2000 <i>Hybrid Polysiloxane</i>	5-7 (125-175)		

### ***New Construction – Satin/Semi-Gloss Finish***

Good	SP 6	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Good	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Very Good	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Excellent	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)

### ***Maintenance – Gloss Finish***

Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)		
Very Good	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbomastic 15 (Spot Prime) <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)
Excellent	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carboxane 2000 <i>Hybrid Polysiloxane</i>	5-7 (125-175)		

### ***Maintenance – Satin/Semi-Gloss Finish***

Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Very Good	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbomastic 15 (Spot Prime) <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)

Performance Level	Surface Preparation (SSPC)	1 <sup>st</sup> Coat	Mils (Microns)	2 <sup>nd</sup> Coat	Mils (Microns)	3 <sup>rd</sup> Coat	Mils (Microns)
<b>Steel</b> <i>Interior Applications</i>			<b>Applications</b> <i>Structural steel, miscellaneous metal fabrications and handrails.</i>				

### ***New Construction - Gloss Finish***

Very Good	SP 6	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)		
Excellent	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		

### ***New Construction – Satin/Semi-Gloss Finish***

Very Good	SP 6	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Excellent	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		

### ***Maintenance - Gloss Finish***

Very Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)	<i>As required</i>			
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		

### ***Maintenance – Satin/Semi-Gloss Finish***

Very Good	SP 2 or 3	Carbocrylic 3358 <i>Water-borne acrylic</i>	2-3 (50-75)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)	<i>As required</i>	
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		

### ***Galvanized Steel – Weathered***

**Applications** *Galvanized handrails, ducts and miscellaneous fabrications.*

### ***Gloss Finish***

Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbocrylic 3359DTM <i>Water borne acrylic</i>	3-4 (75-100)		
Very Good	SP1, SP 2 or 3	Galoseal WB <i>Waterborne acrylic</i>	0.75 (20)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	Brush blast	Rustbond Penetrating Sealer <i>Epoxy Sealer</i>	1-2 (25-50)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		

### ***Satin/Semi-Gloss Finish***

Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)	<i>As required</i>	
Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Excellent	Brush blast	Rustbond Penetrating Sealer <i>Epoxy Sealer</i>	1-2 (25-50)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		

### ***Drywall***

**Applications** *Office areas, locker rooms, atriums, hallways, storage areas, etc.*

Light	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 155 <i>Waterborne acrylic</i>	2-3 (50-75)		
Light to Moderate	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 255 <i>WB acrylic-epoxy</i>	2-4 (50-100)		
Moderate	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)		

Exposure Level	Surface Preparation (SSPC)	1 <sup>st</sup> Coat	Mils (Microns)	2 <sup>nd</sup> Coat	Mils (Microns)	3 <sup>rd</sup> Coat	Mils (Microns)
<b>Concrete Walls / Ceilings</b>			<b>Applications</b> Block or concrete poured walls in kitchen areas, locker rooms, food processing, warehouses, rest rooms, computer rooms, shower areas, and other process areas.				

### **Waterborne Acrylic Finish**

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 155 <i>Waterborne acrylic</i>	2-3 (50-75)	<i>As required</i>	
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### **Waterborne Epoxy Finish**

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 255 <i>WB acrylic-epoxy</i>	2-4 (50-100)	<i>As required</i>	
Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 500 <i>WB epoxy block filler</i>	5-20 (125-500)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	<i>As required</i>	

### **Epoxy Finish**

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 600 <i>Epoxy block filler</i>	5-20 (125-500)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 755 <i>Solvent-free epoxy</i>	5-15 (125-375)	Sanitile 755 <i>Solvent-free epoxy</i>	5-15 (125-375)	<i>As required</i>	

### **Polyester Urethane Finish**

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 500 <i>WB epoxy block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 600 <i>Epoxy block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	

### **Secondary Containment for Chemical Exposure –Concrete**

**Applications** Sumps, trenches, chemical containments, and floors around chemical and fuel spill and storage areas.

Caustic, acid containments	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Semstone 145AFC <i>Novolac aggregate filled</i>	60 (1.55mm)		
Battery Room, Lab Floor	Blast	Carboguard 1340 <i>Epoxy Sealer</i>	3-4 (75-100)	Semstone 140 <i>Epoxy</i>	30-40 (750-1000)		

### **Concrete Floors**

### **Applications**

Light Duty	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)
Moderate	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)
Moderate to Heavy Duty	Blast	Semstone 110 <i>Epoxy sealer</i>	4-8 (100-200)	Sanitile 945 SL <i>Solvent-free epoxy</i>	10-12 (250-300)		
Heavy Duty	Blast	Semstone 110 <i>Epoxy sealer</i>	4-8 (100-200)	Sanitile 945 SL <i>Epoxy aggregate filled broadcast system</i>	60-125 (1.5-3.1mm)	Sanitile 945 SL <i>Solvent-free epoxy</i>	10-12 (250-300)

Fire Rating	Surface Preparation (SSPC)	Prime Coat	Mils (Microns)	Fireproofing Product	Mils (Microns)	Topcoat	Mils (Microns)
<b>Fireproofing – Carbon Steel Cementitious and Intumescent</b>			<b>Applications</b> <i>Structural steel, decks, control rooms, high rise buildings, elevator shafts, roof assemblies, etc.</i>				
From 1 to 3 Hrs UL Rating	<i>See data sheet for specific fireproofing product</i>			Nullifire S605, S606, S607, or AD Firefilm III <b>Intumescent Fireproofing</b>	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			Pyrolite 15 HY <i>Cementitious Light Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			Pyrocrete 240 HY <i>Cementitious High Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			Pyrocrete 241 <i>Cementitious High Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	

Notes:

- Carboguard 800 Series Epoxies are designed to meet your needs:
  - Carboguard 888: Low temperature cure epoxy that provides excellent corrosion protection with an extended re-coat window.
  - Carboguard 893: High solids epoxy primer or intermediate that provides excellent corrosion protection. Use in place of Carboguard 888 as local VOC regulations dictate.
  - Carboguard 890: High solids epoxy providing excellent corrosion protection as a primer, intermediate, or topcoat.
  - Carboguard 890 LT: Use in place of 890 when a **low temperature cure**, high solids epoxy providing excellent corrosion protection as a primer, intermediate, or topcoat is required.
- Carbothane 133 VOC for Carbothane 133 HB as local VOC regulations dictate.
- Carbothane 134 VOC for Carbothane 134 HG as local VOC regulations dictate.
- Rustbond Penetrating Sealer may be used as a primer/sealer over existing, aged paints (with appropriate topcoats) in many maintenance applications as an economical approach to maintenance painting.
- Carbozinc 859 can provide superior performance as a maintenance primer. Please consult your Carboline Sales Representative to discuss your specific application.
- In maintenance painting, some coats may be eliminated depending on the condition of the existing paint system. Please consult your Carboline Sales Representative.
- The application technique of stripe coating edges and weld lines will improve coating system performance.
- Carboxane 2000 may be used in lieu of Carbothane 133 Series or 134 Series when an ultra-durable performance topcoat is desired.
- The Heavy Duty Floor system that utilizes an aggregate broadcast into Sanitile 945 can be applied as a 60 mil or 125 mil system depending on the anticipated use of carts and forklift traffic. Please consult your Carboline Sales Representative.
- Surface Cleaner 3 is a water based, biodegradable cleaner that is effective in cleaning and degreasing surfaces prior to painting.
- Where surface preparation designations of SSPC SP 10, SP 6, SP 7, SP 2 OR 3, and SP 2 are used the ISO designations of Sa 2 ½, Sa 2, Sa 1, St 3, and St 2 (respectively) are also applicable.
- For Fireproofing Systems, other primers than those listed may be acceptable. Consult your Carboline Sales Representative for specific advice.